DISAPPEARING DIVIDENDS IN MALAYSIA: CHANGING FIRM CHARACTERISTICS OR LOWER PROPENSITY TO PAY?

BY

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ABSTRAK

Objektif kajian ini adalah untuk menganalisa tren dividen di Malaysia untuk tahun 1995 sehingga 2006. Ciri-ciri firma yang membayar dividen disiasat untuk menentukan sama ada dividen menghilang atau tidak dan menentukan kebarangkalian pembayaran dividen berdasarkan sektor. Sedangkan kajian ini bertujuan untuk menyimpul sama ada dividen menghilang atau sebaliknya, kajian ini juga cuba menerangkan sama ada ianya adalah disebabkan oleh perubahan ciri-ciri firma ataupun kecenderungan membayar dividen yang semakin berkurangan. Analisa kajian ini adalah berdasarkan rumusan statistik, serta disahkan dengan menggunakan regressi logistik. Secara kesimpulan, ciri-ciri pembayar dividen di Malaysia adalah firma yang lebih menguntungkan, bersaiz lebih besar, mempunyai hutang dan risiko yang kurang tetapi tidak mempunyai aliran tunai bebas yang tinggi mahupun rendah berbanding dengan firma yang tidak membayar dividen. Namun demikian, peluang pelaburan tidak dapat menerangkan ciri pembayar dividen. Dividen yang kian mengurang terbukti berlaku di Malaysia dan ia adalah disebabkan oleh perubahan ciri-ciri firma dan kecenderungan membayar dividen yang semakin berkurangan kedua-duanya. Kebarangkalian pembayaran dividen berbeza dari sektor ke sektor. Pada puratanya, untuk dua belas tahun yang dikaji, sektor Hartanah dan Infrastruktur masing-masingnya merupakan sektor yang mempunyai peratusan pembayar dividen yang paling tinggi dan paling rendah.

ABSTRACT

The objective of this study is to analyse the dividend trend in Malaysia from 1995 to 2006. Firm characteristics of dividend payers were investigated to determine if there is a disappearance of dividend and the likelihood of dividend payment by sector. While this study attempts to establish if dividends were disappearing or otherwise, it also seeks to explain whether it was due to the changing characteristics of the firms or their lower propensity to pay. Analysis was performed first based on summary statistics, and re-confirmed using logistic regression. In a nutshell, dividend payers in Malaysia were characterised as being more profitable, bigger in size, having lower leverage and risk but neither having more nor less free cash flow compared to the non-payers. Investment opportunity, however, was unable to explain the characteristics of the dividend payers. Disappearing dividend was evident in Malaysia and it was due to both the changing characteristics as well as the lower propensity of firms in paying dividends. The likelihood of dividend payment differed across sector. On the average of the twelve years understudy, Property and Infrastructure sectors recorded the highest and lowest percentage of dividend payers respectively.

Chapter 1

INTRODUCTION

1.1 Introduction

Dividend is a word which to many, interpret it as a form of cash distribution made by firms to their shareholders. In reality, it may take other less common forms such as shares or warrants. The decision of whether to pay or not to pay dividends, the quantum, the form and timing may at times be a challenging task as it is usually not a single factor consideration but often affected by various factors concurrently (Al-Twaijry, 2007). While firms seek to provide reasonable returns to their investors through distribution of dividends, more often than not, they are trapped with equally important issues such as availability of cash flows, reservation of funds for future expansion, repayment of the high interest-bearing loans and the like. Not only need they consider the interest of the shareholders, but also the interests of other stakeholders of the firm, hence making the task of distributing the right quantum of dividend not as easy as it perceived to be.

Shareholders, obviously invest for a main reason, which is nothing other than to receive a sensible return from their investments. Other than shares, investment tools are aplenty in the market today, ranging from the conventional savings account to foreign currency account, fixed deposit, unit trust, REITs, bonds, properties and so forth. Choices are made with reference to respective individual's preference such as risk appetite, availability of cash or convenience, to name a few. Lease, Lewellen, and Schlarbaum (1974) in their study of total asset portfolio, uncovered that approximately 40% of the sampled American investors' investments were in direct equity investment. Consistently, Clark-Murphy and Soutar (2004) also found that the Australian Stock Exchange disclosed that in 2000, 41% of Australians had

direct investments in shares, a figure which doubled from only 20% in 1997. These findings evidenced high level of investors' interest in shares. However, it was not obvious if investors in shares were attracted more to capital gains or dividends or both. What makes shares an attractive investment? Are investors particularly interested in dividends?

1.2 Background

Top dividend payers may attract investors as the slowing and uncertain global economic growth dampens gain from the unfavourable movement in share prices. Buying shares for their dividends may appeal to investors who intend to safeguard against falling corporate profits, especially when interest rates around the globe are at among their all time low. Downtrend of the interest rate is proven from the seven US Federal Reserve Funds rate cuts between September 2007 and April 2008, as shown in Table 1.1 below.

Table 1.1

US Federal Reserve Funds Rate Cut from September 2007 until April 2008.

Date	Reduce by	To
18 September 2007	50 bps	4.75%
31 October 2007	25 bps	4.50%
11 December 2007	25 bps	4.25%
22 January 2008	75 bps	3.50%
30 January 2008	50 bps	3.00%
18 March 2008	75 bps	2.25%
30 April 2008	25 bps	2.00%

(Source: Loong, 2008)

The Malaysian interest rates were also not spared from such downtrend as interest rates offered by the commercial banks in Malaysia are currently at among their lowest since 1980 as depicted in Figure 1.1. For instance, the average fixed deposit rate for a tenure of 12 months and a bank savings rate were as high as 11.00% and 7.00% respectively in 1981 as compared to only 3.70% and 1.44% respectively in 2007 (Bank Negara Malaysia, 2008a). This may render investment in shares more attractive than the placement of funds with banks given the low returns as shown below.

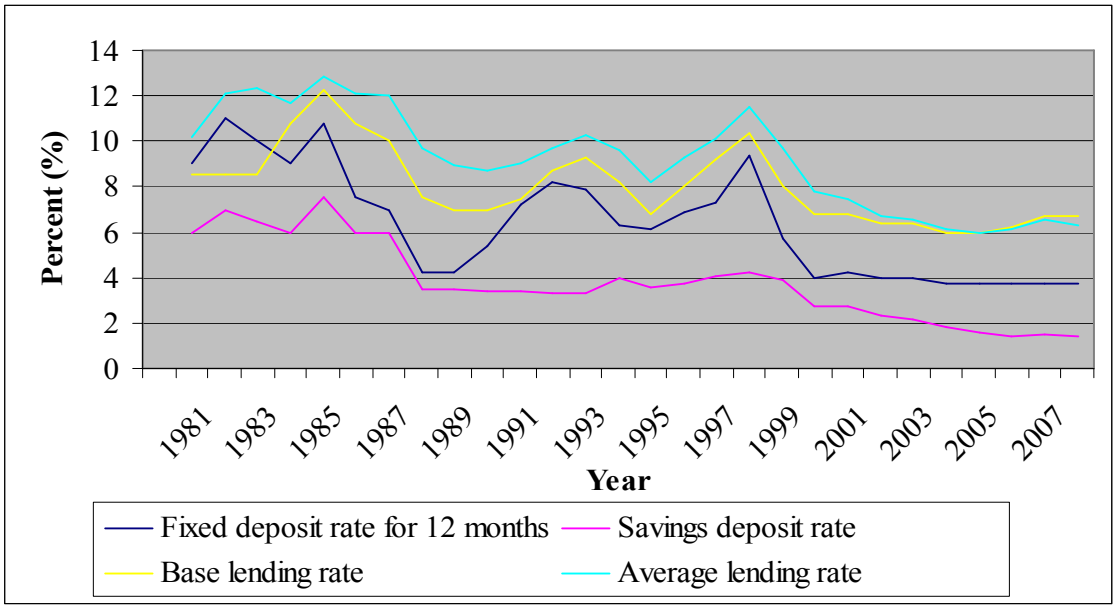

Figure 1.1: **Interest Rates of Commercial Banks in Malaysia from 1981 until 2007. (Source: Bank Negara Malaysia, 2008a)**

With effect from year of assessment 2008, the single tier tax system shall replace the imputation system whereby dividends received by individuals under the new system shall be exempted from tax (The Prime Minister's Office, 2007). This drastic change in tax treatment brings about adverse implication to the low income group as tax refunds from the dividend tax

credit are no longer applicable. This change also drives high concerns as a survey conducted by the Malaysian government's Employees Provident Fund (EPF) in early 2007 reported that fund contributors on average used up 70% of their savings within just 10 years upon retirement (Krishnamoorty, 2007). Retirees who rely on dividend, no matter how little or extensively, will be in a double jeopardy. On contrary, the high income individuals whose personal tax rates are at the highest tax bracket, currently at 28%, welcome the imputation system as they are effectively being taxed at the lower rates of 27%, 26% and 25% for the years of assessment 2007, 2008 and 2009 respectively (The Prime Minister's Office, 2007).

1.3 Problem Statement

As globalisation extends its horizon and business competition intensifies, firms are pressured to perform above rivals in various aspects - market share, operating efficiency, brand name, profitability and so forth. While certain firms strive to be leaders in almost entirely all aspects, including dividend payment, they may not be aware of the current dividend trend, not only locally but globally. Despite the publicly available information of listed companies, this information have not been organised and analysed into forms meaningful and resourceful for firms to easily benchmark themselves against their peers in the industry. The modest information available is usually generated by research houses for specific purpose or intended for a targeted audience. Access of such information may also be restricted although it could at times be purchased with some handsome subscription fee. The lack of convenient yet inexpensive information not only creates problems to the firms but also to the investors in making informed decision.

The lower income group of which the retirees are of great concern, is not only burdened by the declining interest rates on their savings but also with uncertainty in one of

their sources of income – dividends from their investment in shares, not to mention the rising inflation of late. Given the change in the tax treatment which takes effect from the year of assessment 2008, dividends may not be desired as much as before by this clientele group. There may be a need, especially the lower income earner, to explore other means of investment which could provide better returns. On the other hand, the higher income group may seek to invest more aggressively in dividend paying firms due to the lower tax attached to the dividend received. As such, individuals now may need to gain better understanding of the characteristics of firms which pay dividends and those which shy from paying dividends, and thereby invest in those which are to their advantage.

Without relying on relevant empirical studies, one may not be able to predict with reasonable assurance the possibility of firms paying dividends given certain characteristics of the firm. Moreover, one is also unable to gauge the tendency of dividend payment by listed firms in recent years but more importantly, the tendency of their dividend payment going forward.

1.4 Research Objectives

Below are the main objectives of this research:-

i. To analyse the dividend trends in Malaysia from 1995 to 2006.

ii. To investigate the firm-level characteristics of dividend payers in Malaysia.

iii. To study the inclination of public listed firms in Malaysia in paying dividends and identifying any significant changes in the firm-level characteristics affecting dividend payment.

iv. To distinguish the likelihood of dividend payment by sector.

1.5 Research Questions

This research is intended to answer the following questions:-

i. What are the characteristics of dividend payers in Malaysia?

ii. Are dividends appearing or disappearing in Malaysia?

iii. In any case of appearance or disappearance of dividends, what characteristics typical of dividend payers have changed? For instance, in the case of disappearing dividends, do firms show high profitability, less investment opportunity, large firm size, low leverage, low free cash flow and/or low risk?

iv. How are the sectors different from one another in terms of likelihood of dividend payment?

1.6 Definition of Key Terms

The following are the key terms used with its definition within the context of this study:-

i. Bursa Malaysia

Bursa Malaysia Securities Berhad.

ii. Dividend payer

Dividend payer is a firm which pays dividend in year *t*.

iii. Non-payer

Non-payer is a firm which do not pay dividend in year *t*.

iv. Profitability

Profitability is measured by the ratio of aggregate earnings attributable to ordinary (common) shareholders over the aggregate book equity (Fama and French, 2001).

v. Investment opportunity

Investment opportunity is measured by the ratio of market value of the ordinary (common) equity over the balance sheet (book value) of the ordinary (common) equity (Fama and French, 2001; Renneboog and Trojanowski, 2007; Fenn and Liang, 2001; D'Souza and Saxena, 1999; Ooi, 2001; Pandey, 2001b; Li and Lie, 2006) as well as the ratio of the change in total assets from year *t-1* to year *t* over total assets in year *t* (Fama and French, 2001).

vi. Size

Size is measured by the firm's total assets (Gul, 1999; Shenoy and Koch, 1996; Fenn and Liang, 2001; Jensen, Solberg, and Zorn, 1992; Al-Twaijry, 2007) and market capitalisation (Fama and French, 2001; Christie and Nanda, 1994; Ho, 2003; Gul, 1999). Total assets represent the sum of total current assets, long term receivables, investment in unconsolidated subsidiaries, other investments, net property, plant and equipment and other assets (Source: Datastream). Market capitalisation is the market price of shares multiplied by the number of ordinary (common) shares in issue (Source: Datastream).

vii. Leverage

Leverage is measured by the ratio of total debts over total assets (Ooi, 2001; Fen and Liang, 2001; Li and Lie, 2006). Total debts include all interest bearing and capitalised lease obligations, which in short is the sum of long term and short term debts (Source: Datastream).

viii. Free cash flow

Free cash flow is measured by the operating earnings of a firm in period *t* less the change in the book value of a firm's total assets in period *t* (Kousenidis, 2006).

ix. Risk

Risk is represented by the firm's beta (Stacescu, 2006).

x. Sector

Sector is defined in accordance to Bursa Malaysia Listing Requirements (Bursa Malaysia, 2006).

xi. Propensity to Pay

Propensity to pay refers to the tendency of a firm in paying dividends, computed as the difference between the expected payout and actual payout (Fama and French, 2001). A higher expected payout than the actual payout indicates lower propensity to pay dividends.

1.7 Significance of the Study

The amount and extent of studies done by past researchers in the area of dividends are in abundance. However, these researchers have focused mainly on developed markets, such as the United States, the United Kingdom and Europe. Well-researched papers in the markets of developing nations are limited even though these markets have grown in size, quality and transparency over the years (Reddy and Rath, 2005). Findings derived from the developed markets may not be relevant and applicable to other markets due to differences in various factors, among others, legal, culture, financial as well as political (Ho, 2003).

Despite having researchers examining the local Malaysian stock market in the early decade of 2000, such as Lau (2003) and Pandey (2001a), they have not studied very much into the effect after the 1997 financial crisis which had adversely affected Asia. The period of study undertaken by Lau (2003) and Pandey (2001a) were from 1988 to 1999 and 1993 to 2000 respectively, thus the post-crisis years were too short to establish any changes in trends,

be it in firms' characteristics, dividend payment or any other important parameters. In the course of their analysis, certain insightful findings could have also been omitted unintentionally.

This study relates to the Malaysian stock market using recent statistics of major listed firms. The history of the Malaysian stock market sparked as far back in 1960 when public share trading kicked off under the banner of Malayan Stock Exchange (Bursa Malaysia, 2008a). The milestones achieved over the past several decades were plenty. Currently known as Bursa Malaysia Securities Berhad, the total market capitalisation on Bursa Malaysia stood as much as RM1,106.15 billion in 2007 (Bank Negara Malaysia, 2008b). It is of interest in its own right as this market has over the years developed and attracted significant amount of attention from international investors. Since 2004, the proportion of foreign investors in Bursa Malaysia has consistently been above 30% of the total investors (Bursa Malaysia, 2008b), as depicted in Figure 1.2. Of late, precisely from December 2007 until March 2008, the percentages of foreign investors over the total investors have surpassed the 40% mark (Bursa Malaysia, 2008c), indicating growing foreign interests towards the Malaysian market.

This study shall establish the characteristics of dividend paying firms on Bursa Malaysia, analyse the dividend trends, establish the propensity of dividend payment, compare the trend observed to other markets in the world and ascertain if there were differences in likelihood of dividend payment across sectors. A variety of markets from emerging to developed, were reviewed and compared with the local front. Also of much significance, this study encompassed both the pre and post 1997 financial crisis periods.

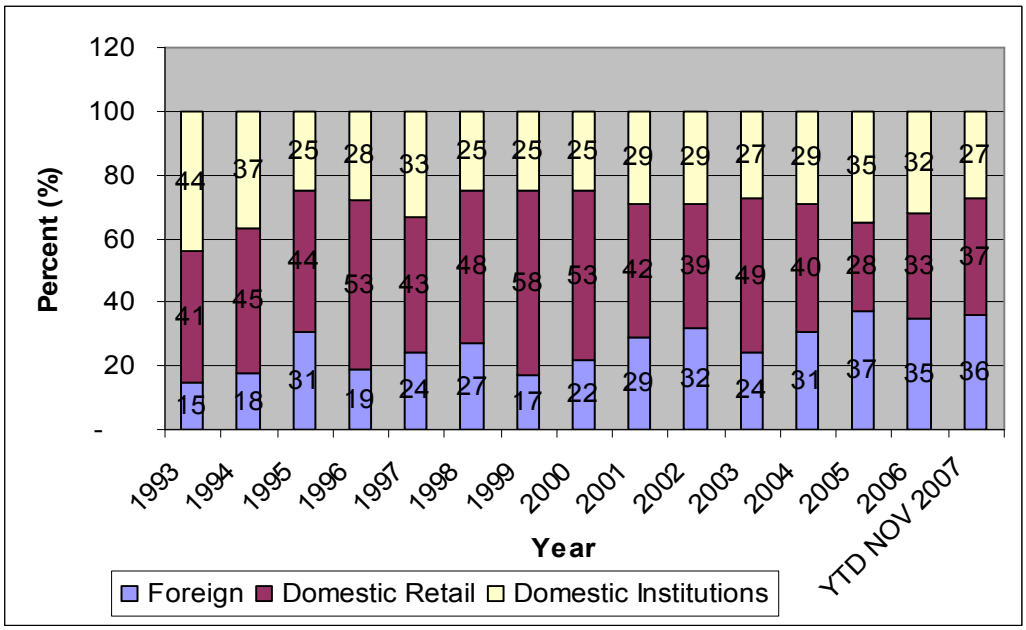

Figure 1.2: **Breakdown of Trading on Bursa Malaysia by Value by Year from 1993 until Year-To-Date (YTD) November 2007.**

(Source: Bursa Malaysia, 2008b)

1.8 Organisation of Thesis

This thesis is organised into five chapters. First and foremost, Chapter 1 provides an introduction and background of this study. It also illustrates the research problem, outlines the research questions, objectives the research seek to achieve and the significance of this study. Chapter 2 advances into relevant literatures on dividend trends in major markets around the globe, including Malaysia. Hypotheses on the characteristics of dividend payers are also developed therein. Subsequently, Chapter 3 discusses the research methodology, among others the research design, data collection method, statistical analysis techniques as well as the measurement of variables understudy. Analysis and findings from the research are then

discussed in Chapter 4. Lastly, Chapter 5 concludes this study by discussing the results from the research with its implications and limitations as well as suggestions for future research.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

The study of corporate dividend behaviour began long ago and many theories were developed, among them are the dividend irrelevance theory, signaling theory, agency theory, trade off theory, pecking order theory, and so forth. Despite the extensive research on dividends, it is still a puzzle not wholly solved until today (Stacescu, 2006).

Lintner (1956) contributed significantly towards the study of dividend behaviour. First and foremost, he found that firms have a long-run target dividend payout ratio. Secondly, he established that managers believed investors prefer stable dividends and thus, attempt to smooth out dividend payments and thirdly, managers focused more on changes in dividend than on the absolute level of change.

Equally prominent and interesting researchers in the area of dividends were Miller and Modigliani (1961) who found that dividends were irrelevant in developing the firm's dividend policy as they do not affect the firm's value under perfect market condition. There were much controversy surrounding the dividend irrelevancy theory with recent researchers like DeAngelo and DeAngelo (2006) contesting that dividend payout policy is in fact relevant.

Dividends could also provide a signaling mechanism for managers to relay to investors the actual performance of the firm (Stacescu, 2006). Positive and negative abnormal returns on increase and decrease of dividend respectively were usually observed, suggesting that capital market interpreted dividend increase as favourable news and vice versa (Stacescu, 2006; Li and Lie, 2006). When Lonie, Abeyratna, Power, and Sinclair (1996) investigated more in-depth into the scenario where dividends increased when earnings decreased, an

insignificant positive abnormal return was found, characterising a "false signal" which attempted to mislead the market. Not only that, Shenoy and Koch (1996) also observed positive relationship between leverage and future cash flow on the same theory. However, not all firms are dividend signalers since dividend policy is a firm specific matter (Tse, 2005).

Pursuant to the pecking order theory of capital structure, firms have a preferred hierarchy for financing decisions (Myers, 1984). Firms finance investment with the least cost, first from internal financing of retained earnings, then with safe debt, followed by risky debt and finally with equity (Myers, 1984). On the rationale that cash flow will be depleted soon before debts are issued, cash flow and debts are expected to be negatively related (Shenoy and Koch, 1996).

On the other hand, according to the trade off theory, the amount of dividends to be distributed by a firm involves a strike for balance in selecting the highest level of dividends and the avoidance of external equity or excessive debt financing (Higgins, 1972). According to Fama and French (2002), the prediction on dividends from both the trade off theory and pecking order theory were rather similar, except in the aspect of leverage.

In a more recent theory of Market-Timing developed by Baker and Wurgler (2002), it was argued that firms issued equities and debts by reference to time in the sense that debts were usually issued when share values were high while shares were issued when the share values were low. Theories on dividends are abundance, however what is of considerable importance is to understand what affects firm to undertake differing payout.

The literature review is structured as follows: Section 2.2 describes the changing trends observed during different time frame and at different parts of the world. Section 2.3 outlines the theoretical framework and discusses the development of hypotheses employed in this study.

2.2 Review of Literature on the Changing Dividend Trends

Dividend policies around the globe were found to be affected by different factors because each country is different socially, financially, legally and politically (Ho, 2003). Corporate and personal taxes also influence the capital structure and that capital structure differed across countries (Megginson, Smart, and Gitman, 2007). The following were some dividend trends studied at differing length and time at various parts of the world, encompassing developed markets of The United States, The United Kingdom and The European Union, a developed market in Asia which is Japan, as well as emerging markets of India and Malaysia. The variety of markets chosen was intended to provide a wider perspective and better form for comparison.

2.2.1 The United States (U.S)

Fama and French (2001) researched on several decades of dividend trend from 1926 to 1999 on non-financial non-utility firms on the New York Stock Exchange (NYSE). It was observed that the percentage of these firms paying dividends dropped by half from 66.9% in 1930 to 33.6% in 1933. Nevertheless, the most obvious change was seen with the significant drop in the proportion of firms paying cash dividends from 66.5% in 1978 to 20.8% in 1999. According to Fama and French (2001), the drastic drop was due partly to the changing characteristics of the publicly traded firms, whereby the population of publicly traded firms swayed towards small firms with low profitability and strong growth opportunities. It was worth noting that they found both the lower propensity to pay as well as the changing characteristics of the dividend payers contributed to the fall in the proportion of payers.

In a shorter duration of study, Baker and Wurgler (2004) found four distinct trends in propensity to pay dividends by NYSE firms from 1963 to 2000. The first increasing trend was seen in mid 1960s, then fell through 1969 and went into positive territory again in 1970 until 1977. The decline observed in 1978 was the largest and longest where it remained on a low note through 2000. Between 1980 to 1985, another study conducted by DeAngelo and DeAngelo (1990) on mainly large, well-known NYSE firms that were adversely affected by the economic downturn, saw the majority of firms sampled reduced their dividends. It was observed that firms were inclined to increase dividends during pre-distress period but reduce dividends significantly during distress period and the dividend reductions were usually made in a few occasions during their difficult times (DeAngelo and DeAngelo, 1990). Nevertheless, firms do adjust their payout policies to changes in earnings gradually rather than abruptly, displaying the well-known concept of "dividend-smoothing" (Renneboog and Trojanowski, 2007).

According to Baker and Wurgler (2002), the propensity to pay dividends by the U.S firms decreased when sentiment for growth stocks which characterised non-payers was high, as seen in late 1960s and late 1990s. When growth stocks failed, demand for stocks was seen to move towards those with more stable or secure returns, as observed during the mid-1960s and early to mid-1970s (Baker and Wurgler, 2002).

In the examination of dividend trends from 1978 through 2000, DeAngelo, DeAngelo, and Skinner (2004) found that the aggregate value of real dividends in fact rose over time although the number of firms paying dividends decreased, suggesting a growth concentration of dividend payment. The difference from the earlier mentioned phenomenon of declining propensity to pay dividends arose from the use of aggregate value of dividends which could

create dominance in results by large companies, thereby distorting the study of dividend trend (Al-Twaijry, 2007).

2.2.2 The United Kingdom (U.K)

In a study conducted by Tse (2005) on U.K listed industrial companies in the FTSE All Share Index from 1992 to 1998, it was found that firms which were always increasing dividends constituted 32.48% while firms distributing irregular dividends captured 31.57% of all the firms under study. Contrary to the findings of DeAngelo and DeAngelo (1990) and Renneboog and Trojanowski (2007) that most firms applied dividend-smoothing, only 9.12% of firms were found to practise the same (Tse, 2005). However, some considerations should be placed on the finding of Tse (2005) as it could be distorted by the limited period under study of only seven years.

Gwilym, Seaton, and Thomas (2004) reviewed solely on U.K industrial firms but for a longer period from 1979 to 2000, excluding foreign firms. They found that in 1979, 94.1% of the firms under study were dividend payers but the percentage fell to 66.9% by 2000. Despite the decline in the number and proportion of dividend payers, nominal and real dividends growths were observed whereby real dividends chalked a 136.5% increase from 1979 to 2000 (Gwilym et al., 2004). When dealt further into details, although it was observed that there were 402 less dividend payers compared between 1979 to that of 2000, there was actually an increase of 67 payers from 1980 to 1997. Most of the dividend payers lost was relatively small, whilst large payers continued to increase their dividends. These findings seemed to provide differing conclusion from that of Fama and French (2001) in the U.S market which saw declining propensity in paying dividends by firms.

2.2.3 European Union (E.U)

Eije and Megginson (2006) researched on listed companies in fifteen countries that were members of the E.U before May 2004, from1989 to 2003. The proportion of European firms paying dividends was found to have declined from 91% to 62 % within the period mentioned. Nevertheless, aggregate real dividends paid and dividends payout ratio rose significantly. Eije and Megginson (2006) found that the increase in percentage of retained earnings to total equity did not result in higher dividend payment. They concluded that dividends and earnings were very much concentrating and firms were having less propensity to pay dividends.

2.2.4 Japan

Ferris, Sen, and Yui (2006) studied dividend trends of the Japanese market from 1990 when the country was in a recession following the collapse of its bubble economy through 2001. On the whole, the aggregate real dividends rose 8.2% over the period under study and in 2001, almost 89% of Japanese firms paid dividends (Ferris et al., 2006). The disappearing dividend paying firms as found by French and Fama (2001) did not hold in the Japanese market. There was also no evidence of dividend concentration found by Ferris et al. (2006), unlike as confirmed by DeAngelo et al. (2004) in the U.S market.

2.2.5 India

Reddy and Rath (2005) studied the characteristics of dividend payers and non-payers on both India's stock exchanges, the National Stock Exchange and Bombay Stock Exchange from 1991 to 2001. The study on this emerging market showed that the number of firms which ceased paying dividends rose significantly from 2.5% in 1991 to 24% in 2001, which was equivalent to a decline in the proportion of dividend payers from 57% in 1991 to 32% in

2001. Although Reddy and Rath (2005) noted that regular payers paid higher dividends than other firms, they also found that firms in India became less likely to pay dividends.

2.2.6 Malaysia

In a study conducted on Main Board listed companies on Bursa Malaysia from 1993 to 2000, Pandey (2001a) found instability of dividend policy in Malaysia. Almost half of the firms increased their dividends when earnings increase, but when earnings decline, they did not immediately respond to omit dividends. Lau (2003) found fluctuating propensity to pay dividends by Main Board listed companies in his study from 1988 to 1999, citing instability of dividend policy and low dividend smoothing as the possible reasons.

2.3 Theoretical Framework and Hypotheses

The following parts outline the development of the research model, theoretical framework and hypotheses of this study.

2.3.1 Model Development

This research is based on the backbone of the study by Fama and French (2001). Fama and French (2001) studied three firm characteristics of profitability, size of firm and investment opportunities by differentiating them into payers and non-payers as well as investigated propensity in paying dividends by firms in the U.S using summary statistics and confirmed using logistic regression. Noting the limited variables explored in that study, the scope has been extended in this research by including three additional important variables, namely leverage, free cash flow and risk based on past researches discussed in 2.3.2.4 through 2.3.2.6. Figure 2.1 presents the theoretical framework of this study.

Also of much interest to uncover is when firms are grouped into their respective sector, do they differ from one another in their likelihood of dividend payment? This is a further extension from the study of Fama and French (2001) to distinguish the likelihood of dividend payment when the firms are categorised into their respective sector as defined by Bursa Malaysia.

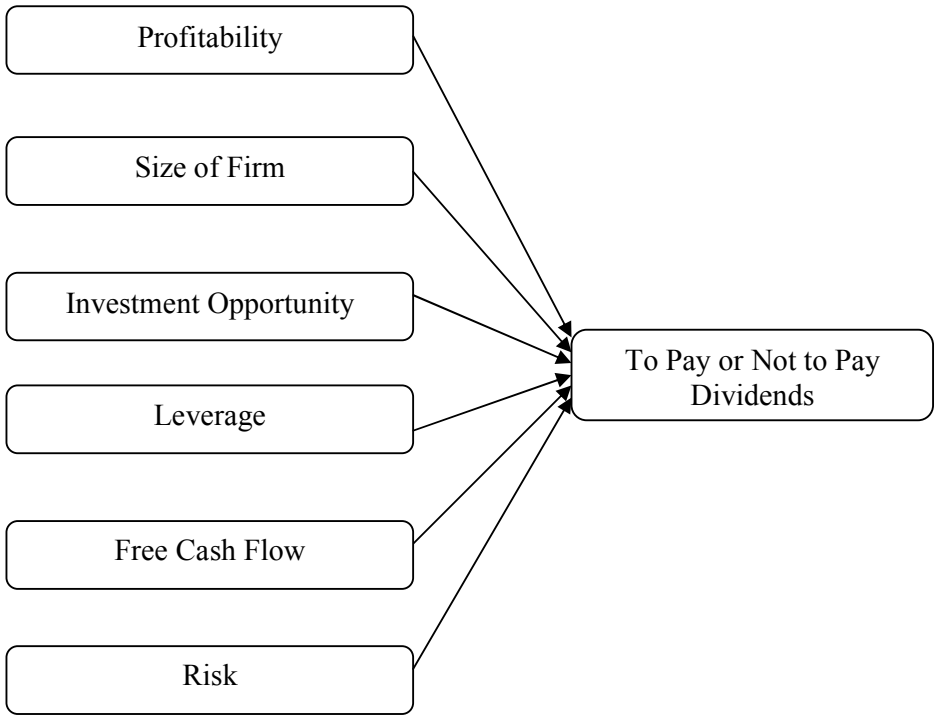

***Figure 2.1*: Theoretical Framework.**

2.3.2 Hypotheses Development

The following discusses how the hypotheses for each of the variables under study are being developed based on past literature review.

2.3.2.1 Profitability

Profitability has always been a crucial determinant of dividend payout whereby more profitable firms were found to be more likely to pay dividends (Fama and French, 2001; Li and Lie, 2006; Renneboog and Trojanowski, 2007; Anastassiou, 2007). Many researchers have supported Lintner's Model which described the change in dividends as a function of current earnings and past dividends. According to Lintner's Model (Fama and Babiak, 1968), the change in dividend payment from year *t-1* to year *t,* ΔD_{it} is given as:

$$\Delta D_{it} = a_{i} + c_{i}(r_{i} E_{it} - D_{it}) + u_{it} \quad (1)$$

where

c_{i} = speed of adjustment coefficient

r_{i} = the firm's target ratio of dividends to profit

E_{it} = the firm's profit in year *t*

D_{it} = the firm's dividend payment in year *t*

u_{it} = error term

Over time, Lintner's model of dividend behaviour of firms has been challenged and improved. For instance, Nakamura and Nakamura (1985) included an additional variable, lagged earnings in the equation, regressed it with the comparable Lintner's model which omitted lagged earnings and found their model to yield better prediction power of dividend payout of firms as evidenced by the higher R^2.

Dividends were trimmed more often than being cut totally which implied that the reluctance of management was not on reducing dividends but on omitting dividends (DeAngelo and DeAngelo, 1990). Surprisingly, Ferris et al. (2006) found that the percentage of Japanese firms with negative profitabiliy that paid dividends increased from 1990 to 2001,

contradicting the much well-received understanding of profitability as the primary determinants of dividend payout.

Although there were a few differing findings in the relationship between profitability and dividend payment, the majority of the findings were that profitability was a crucial determinant of dividend payout as observed by Fama and French (2001), Li and Lie (2006), Renneboog and Trojanowski (2007) and Anastassiou (2007). As such, the tested hypothesis is:

$H1_1$: Dividend payers tend to be more profitable than non-dividend payers.

2.3.2.2 Size of Firm

Gwilym et al. (2004) who researched on U.K industrial firms, reported that in year 2000, the largest 100 dividend payers accounted for 88% of the total dividends whilst the top 300 payers made up 97% of the total dividend payment. Larger firms were distributing more dividends than the smaller firms (Fama and French, 2001; Eije and Megginson, 2006); Renneboog and Trojanowski, 2007; Stacescu, 2006). Consistently in the Malaysian context, Al-Twaijry (2007) found that size of firm has significant positive relationship with dividend per share. Undeniably, there were also a few researchers who did not find any significant relationship between size of firm and dividend payment, such as Li and Lie (2006) and Gul (1999). Based on the general findings supporting the positive relationship between size of firm and dividend payment, the following hypothesis is derived.

$H2_1$: Dividend payers tend to be bigger in firm size than non-dividend payers.

2.3.2.3 Investment Opportunity

According to Renneboog and Trojanowski (2007), firm's investment opportunity did not affect the dividend payout decision. Saxena (n.d.) who studied the difference between regulated and non-regulated firms observed that future growth opportunities were insignificant for regulated firms. The explanation for such behaviour was that the managers felt secured on their capital arrangement being a regulated firm and thus, paid dividends without paying much attention on the future capital needs for growth (Saxena, n.d.).

Nevertheless, Fama and French (2001) discovered that firms with high investment opportunities were less likely to pay dividends, and that firms that have never paid dividends were found to have higher growth opportunities compared to the payers and former payers. Dividend payout by firms were high when few investment opportunities were available and free cash flows were high; although there was no relationship when there were more investment opportunities and limited free cash flows (Fenn and Liang, 2001). Fen and Liang (2001) rationalised that firms with few investment opportunities needed less future funds, and therefore increased their dividend payment. Such inverse relationship between investment opportunity and dividends was also found to be true by Stacescu (2006). Thus:

$H3_1$: Dividend payers tend to have less investment opportunity than non-dividend payers.

2.3.2.4 Leverage

Growth firms had lower level of debts in their capital structure than non-growth firms (Gul, 1999). One of the reasons of underinvestment was the prudent concept of firms issuing only risky debts which could be backed by assets, hence less levered firm was found to have lower dividend yield ratio (Gul, 1999). Li and Lie (2006) found that firms with high debt ratios had higher tendency to increase dividends more than firms with low debt ratios. Nevertheless, the

reason behind such correlation was not obvious. The probable reasoning was that firms could have used debt payments and dividend payments as substitute to disbursing funds to the claimholders (Li and Lie, 2006).

However, Renneboog and Trojanowski (2007) demonstrated that the more levered a firm, the lesser the payout ratios, consistent with the findings of Eije and Megginson (2006) and Al-Twaijry (2007). Debt could be made a substitute of dividends in a way that debts tie the firm down to a series of future cash flow (Jensen, 1986). As such, when a firm's leverage is high, the dividend is expected to be low. Hence, the tested hypothesis is:

$H4_1$: Dividend payers tend to be having less leverage than non-dividend payers.

2.3.2.5 Free Cash Flow

Free cash flow is defined as cash flow in excess of those necessary to fund plans or projects with positive net present value when the cash flows are discounted at the appropriate rate (Jensen, 1986). It provides stakeholders information about the ability of the firm to meet its obligation, among others, ability to pay dividends (Kousenidis, 2006).

Chay and Suh (2005), in their cross-sectional study over twenty-four countries in 2002, found an insignificant positive correlation between free cash flow and dividends. However, Jensen (1986) explained that instead of firms investing in low return projects, firms with free cash flow could increase dividends or repurchase stocks, thereby payout cash. Dividend payment not only reduces free cash flow problems but also as a means to control a firms' management from the perspective of agency theory (Stacescu, 2006). It is thus expected that firms upon paying dividends will end up with lower free cash flow. Hence, the tested hypothesis is:

$H5_1$: Dividend payers tend to be having less free cash flow than non-dividend payers.

2.3.2.6 Risk

Shenoy and Koch (1996) established that a firm's leverage, future cash flow and risk may have dynamic interaction simultaneously at the same point in time and also across time. Stacescu (2006) found that less risky firms paid higher dividends. Firms with higher risk and higher investment opportunity displayed lower dividend yields, in line with the "maturity hypothesis" (Stacescu, 2006). As firms become more established, usually indicated although not represented by larger or grown firm, the level of risk is expected to decline (Stacescu, 2006). Supporting the risk factor was Lintner's (1956) proposition that management were reluctant to increase dividends if the stability of future earnings was uncertain. It is therefore hypothesized that:

$H6_1$: Dividend payers tend to be having less risk than non-dividend payers.

2.3.2.7 Sector

Acknowledging differences in dividend patterns among sectors, researchers have performed studies on dividend payout characteristics on specific sector, for instance, the property sector (Ooi, 2001) and the electric utility sector (Higgins, 1974). Florence (1959) discovered that sector, in addition to size of firm, influenced the ratio of dividends to earnings. In her research of English listed companies from 1948 to 1951, she found that very large breweries were the highest in dividend payout ratio.

Pandey (2001a) found that sector did influence the dividend payout ratio of stocks listed on the Bursa Malaysia, contrary to Al-Twaijry (2007), who found otherwise in his study from 2001 until 2005 on the same stock exchange. The non-association between sector and payout pattern observed could rest upon the argument that dividend policy was largely an individual form matter, or in other words, specific to each firm (Tse, 2005), as also pointed